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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,717	04/08/2005	Shuichi Kubota	1207-115	7748
23117	7590	07/14/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			LEE, GILBERT Y	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/530,717

Applicant(s)

KUBOTA ET AL.

Examiner

Gilbert Y. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/8/05 & 6/17/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 1 is objected to because of the following informalities: in line 13 "formed" should be changed to --form--. Appropriate correction is required.

3. Claim 2 is objected to because of the following informalities: in line 13 "formed" should be changed to --form--. Appropriate correction is required.

4. Claims 5-16 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-16 not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 2 recite "a reinforcing member" in line 6 and "a reinforcing member" in line 12. It is unclear to the examiner whether the applicant is claiming a first reinforcing member and a second reinforcing member that is integrated with the heat-resistant material or if the applicant is claiming a single reinforcing member. For the purposes of this examination the examiner is interpreting the claims to read as a single reinforcing member.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US Patent No. 5,499,825) in view of Hutchings et al. (US Patent No. 6,102,995).

Regarding claims 1 and 2, the Maeda et al. reference discloses a spherical annular seal member which is used particularly in an exhaust pipe spherical joint, comprising:

a spherical annular base member (10) defined by a cylindrical inner surface (e.g. surface labeled at 11), a partially convex spherical surface (12), and large- (e.g. right most diameter in Fig. 1) and small (e.g. left most diameter in Fig. 1) diameter-side annular end faces of said partially convex spherical surface; and

an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member (13) made from a compressed metal wire net and a heat-resistant material (Col. 6, Lines 54-58) filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite (Col. 4, Lines 22 and 23), said outer layer including a lubricating composition constituted of at least boron nitride and at least one of alumina and silica (Col. 4, Lines 35-38), an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth lubricating sliding surface (15) in which said lubricating composition and said reinforcing member are integrated in mixed form.

However, the Maeda et al. reference fails to explicitly disclose the heat-resistant material containing organic phosphorus compound.

The Hutchings et al. reference, an expandable graphite material, discloses the addition of an organic phosphorous compound (Col. 13, Lines 47-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an organic phosphorous compound to the Maeda et al.

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reference in view of the teachings of the Hutchings et al. reference in order to provide a fire resistant composition (Hutchings et al. Col. 13, Lines 47-53).

Regarding claim 3, the Maeda et al. reference, as modified in claim 2, discloses the lubricating composition containing 70-90 wt.% of boron nitride and 10-30 wt.% of at least one of alumina and silica (Col. 5, Lines 35-38).

Regarding claim 4, the Maeda et al. reference, as modified in claim 2, discloses the lubricating composition further containing polytetrafluoroethylene resin (Col. 5, Lines 16-28).

Conclusion

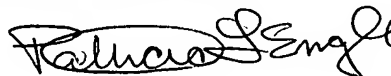
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olstowski (US Patent No. 3,719,608) which discloses the percentage of organic phosphorus compound to be used in expandable graphite.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gilbert Y. Lee whose telephone number is 571-272-5894. The examiner can normally be reached on 8:00 - 4:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Patricia Engle", written in a cursive style.

Patricia Engle
SPE
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GL
7/7/06